

IN THE CLAIMS

Please amend the claims as follows:

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1. (Amended) A viscoelastic characteristic value-measuring apparatus comprising:
an input bar and an output bar arranged in a straight line to hold a specimen made of a viscoelastic material therebetween;

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first and second strain gauges installed on said input bar to measure an incident strain wave generated when a front end of said input bar is hit and a reflected strain wave; and

third and fourth strain gauges installed on said output bar to measure a transmitted strain wave transmitted from said input bar to said output bar through said specimen,

wherein said input bar and said output bar are made of a viscoelastic material;

a length of said output bar is set to a range of 500 mm to 2500mm both inclusive; and

a length of said input bar is set to a range from 1500mm to 2500mm both inclusive.

2. (Amended) The measuring apparatus according to claim 1, wherein the length of said output bar is relatively less than the length of said output bar.

5. (Amended) The measuring apparatus according to claim 1, wherein said first strain gauge is installed on said input bar at a front side thereof, and said second strain gauge is installed thereon at a rear side thereof, such that said first strain gauge is located between a position spaced at an interval of 10% of a whole length of said input bar from a rear end thereof and a position spaced at an interval of 70% of the whole length thereof from the rear end thereof and said second strain gauge is located between a position spaced at an interval of 8% of the

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whole length of said input bar from the rear end thereof and a position spaced at an interval of 62% of the whole length thereof from the rear end thereof.

6. (Amended) The measuring apparatus according to claim 1, wherein said third strain gauge is installed on said output bar at a front side thereof, and said fourth strain gauge is installed thereon at a rear side thereof, such that said third strain gauge is located between a position spaced at an interval of 4% of the whole length of said output bar from a front end thereof and a position spaced at an interval of 25% of the whole length thereof from the front end thereof and said fourth strain gauge is located between a position spaced at an interval of 8% of the whole length of said output bar from the front end thereof and a position spaced at an interval of 50% of the whole length thereof from the front end thereof.

9. (Amended) A method of measuring a viscoelastic characteristic value, comprising the steps of:

hitting a front end of an input bar having a length in the range of 1500mm to 2500mm, with a specimen held between a rear end of said input bar and a front end of an output bar having a length in the range of 500mm to 2500mm to generate a strain wave including an incident strain wave, a reflected strain wave, and a transmitted strain wave propagating in said input bar, said specimen, and said output bar;

measuring said incident strain wave and said reflected strain wave with first and second strain gauges installed on said input bar, and measuring a transmitted strain wave with third and fourth strain gauges installed on said output bar;

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estimating a history of said incident strain wave at the rear end of said input bar, a history of said reflected strain wave at the rear end of said input bar, and a history of said transmitted strain wave at the front end of said output bar by using a history of said each strain wave;

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computing a strain speed history of a specimen, a strain history thereof, and a stress history thereof from said estimated history of said incident strain wave, said history of said reflected strain wave, and said history of said transmitted strain wave and determining a stress-strain curve of said specimen; and

computing a viscoelastic characteristic value including Young's modulus or a loss factor, from said stress-strain curve.

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15. (Amended) The method according to claim 9, wherein a front end of said input bar is hit with an impact bar at an impact speed of 1m/s - 70m/s.